## USING AND GENERATING FINITE STATE MACHINES TO MONITOR SYSTEM STATUS $\underline{ABSTRACT}$

Provided are a method, system, and program for monitoring a system including a plurality of subcomponents. An implementation of a plurality of subcomponent finite state machines for subcomponents of the system is provided, wherein each subcomponent finite state machine indicates output values for combinations of input state values related to states in the subcomponent. An implementation of a system finite state machine having output values for combinations of the output values from the subcomponent finite state machine is provided. For each subcomponent finite state machine, a determination is made of the output value by determining the input state values of the subcomponent, processing the subcomponent finite state machine with the determined input state values to determine the subcomponent output value, and processing the system finite state machine with the determined subcomponent output values to determine the system output value.